

High Mountain Dams in Upalco Unit,  
Farmers Lake Tunnel  
Ashley National Forest  
5.7 miles north of Swift Creek Campground  
Mountain Home Vicinity  
Duchesne County  
Utah

HAER No. UT-42-G

HAER  
UTAH,  
7-MOHON,  
1-G-

PHOTOGRAPHS

WRITTEN HISTORIC AND DESCRIPTIVE DATA

Historic American Engineering Record  
Rocky Mountain Regional Office  
National Park Service  
U.S. Department of the Interior  
P.O. Box 25287  
Denver, Colorado 80537

HISTORIC AMERICAN ENGINEERING RECORD

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High Mountain Dams in Upalco Unit, Farmers Lake Tunnel

HAER No. UT-42-G

Location: 5.7 miles north of Swift Creek Campground, Ashley National Forest  
Mountain Home vicinity, Duchesne County, Utah

UTM: 12.552880.4505270  
Quad: Mount Emmons/Garfield Basin

Date of Construction: 1920

Builder/Designer: Farmers Irrigation Company

Present Owner: Moon Lake Water Users Association, Roosevelt, Utah 84066

Original Use: Dam

Present Use: Dam

Significance: On the majority of the reservoirs in the Upalco Unit, the irrigation companies created storage by building dams to raise the natural high-water level of the lakes and cut drainage channels below the natural outlets. On only one reservoir -- Farmers -- no dam was built and the lake drawn down by tunnel. For this reason, the Farmers Lake Tunnel is unique among the structures in the unit. With a log grizzly at the inlet and a control gate at the outlet, the tunnel is a picturesque and technologically interesting structure.

Inventoried by: Clayton Fraser and James Jurale  
Fraserdesign  
Loveland, Colorado

October 19, 1985

### HISTORICAL INFORMATION

On October 10, 1919, representatives of the Farmers Irrigation Company applied for 803 acre-feet of water from Farmers Lake, the largest in the Swift Creek drainage. The application was approved by the State Engineer in April 1919, and in September the Forest Service granted a special use permit to impound the water. Rather than build a typical earth-fill dam, the irrigation company drifted a tunnel through the rock of the terminal moraine on the southeast corner of the lake. Approximately 300 feet long and three feet wide, the tunnel lowered the natural lake level by 12.5 feet. The original shaft, completed in 1920, later collapsed, and the access holes were filled and a second tunnel cut nearby. Although the shaft through solid stone remains in good condition, the outlet tunnel has been inoperable for several years, and the surface structures have been allowed to deteriorate. It is proposed that the tunnel be blocked to return the lake to its natural level.

### ARCHITECTURAL INFORMATION

Dam length: 300 feet  
Dam height: 3 feet  
Construct: Rock-cut tunnel  
Lake area: 73 acres; 1,327 acre-foot maximum capacity; 12.5 vertical foot maximum drawdown  
Outlet: 0-inch slide gate on outlet side of tunnel

### BIOGRAPHICAL INFORMATION

"Preliminary Engineering Report: Stabilization of High Mountain Lakes, Provo River Drainage," National Forest Service Report, 1968, n.p.

William F. Gettleman, "Report on the Lakes and Reservoir of the Headwaters of the Uintah, Whiterocks and Lakefork Rivers, Uintah Project, Utah; Feb. 1932," page. 27.

Farmers Lake Reservoir File, Roosevelt District Ranger Office, Ashley National Forest, Roosevelt, Utah.

Field inspection by Robert Righter, July 29, 1985.

For additional information, see Irrigation Canals in the Uinta Basin, HAER No. UT-30.

High Mountain Dams in Upalco Unit,  
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HAER No. UT-42-G  
(Page 3)

